

Mouse MEK2/MAP2K2 Monoclonal Antibody | anti-MAP2K2 antibody

Anti-MEK2/MAP2K2 Antibody (monoclonal, 2H4)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125912	Mouse	Human, Mouse, Rat	Flow Cytometry, Functional Assay, Immunofluorescence, Immunocytochemistry, Immunohistochemistry, Western Blot

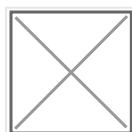
PRODUCT SYNONYMS

MEK2/MAP2K2; Monoclonal Antibody; Anti-MEK2/MAP2K2 Antibody (monoclonal; 2H4); MAP2K2; MEK2; MKK2; PRKMK2; Dual specificity mitogen-activated protein kinase kinase 2; MAP kinase kinase 2; MAPKK 2; EC 2. 7. 12. 2; ERK activator kinase 2; MAPK/ERK kinase 2; MEK 2; mitogen-activated protein kinase kinase 2; anti-MAP2K2 antibody

PRODUCT SPECIFICATIONS

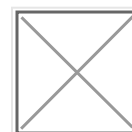
Host	Mouse
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Isotype	Mouse IgG1
Clone Number	2H4
Specificity	Mouse IgG monoclonal antibody for MEK2/MAP2K2 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl and 0.2mg Na ₂ HPO ₄ .
Applicable Applications for anti-MAP2K2 antibody	FCM/FACS (Flow Cytometry), IF (Immunofluorescence), ICC (Immunocytochemistry), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	E Coli-derived human MEK2/MAP2K2 recombinant protein (Position: M1-V400).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 4. Flow Cytometry analysis of A431 cells using anti-MEK2/MAP2K2 antibody (AAA125912). Overlay histogram showing A431 cells stained with AAA125912 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-MEK2/MAP2K2 Antibody (AAA125912, 1µg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IF (Immunofluorescence)

Figure 3. IF analysis of MEK2/MAP2K2 using anti-MEK2/MAP2K2 antibody (AAA125912). MEK2/MAP2K2 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5µg/mL mouse anti-MEK2/MAP2K2 Antibody (AAA125912) overnight at 4 degree C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of MEK2/MAP2K2 using anti-MEK2/MAP2K2 antibody (AAA125912). MEK2/MAP2K2 was detected in paraffin-embedded section of human renal clear cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-MEK2/MAP2K2 Antibody (AAA125912) overnight at 4 degree C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of MEK2/MAP2K2 using anti-MEK2/MAP2K2 antibody (AAA125912). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 µg of sample under reducing conditions. Lane 1: human HEK293 whole cell lysates; Lane 2: human HepG2 whole cell lysates; Lane 3: human Jurkat whole cell lysates; Lane 4: human K562 whole cell lysates; Lane 5: mouse brain tissue lysates; Lane 6: mouse Raw264.7 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-MEK2/MAP2K2 antigen affinity purified monoclonal antibody (Catalog # AAA125912) at 0.5 µg/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for MEK2/MAP2K2 at approximately 45KD. The expected band size for MEK2/MAP2K2 is at 45KD.

ADDITIONAL INFORMATION

Related Product Information for anti-MAP2K2 antibody	Dual specificity mitogen-activated protein kinase kinase 2 (MAP2K2), also called PRKMK2 or MEK2, is an enzyme that in humans is encoded by the MAP2K2 gene. The protein encoded by this gene is a dual specificity protein kinase that belongs to the MAP kinase kinase family. MAP2K2 is mapped to 19p13.3. This kinase is known to play a critical role in mitogen growth factor signal transduction, and the inhibition or degradation of this kinase is found to be involved in the pathogenesis of Yersinia and anthrax. Recombinant MEK2 and MEK1 both could activate human ERK1 in vitro, and they further characterized biochemically the 2 MAP2Ks. MAP2K2 has been shown to interact with MAPK3 and ARAF.
References	1. "Entrez Gene: MAP2K2 mitogen-activated protein kinase kinase 2" 2. Zheng, C. F., Guan, K. L. Cloning and characterization of two distinct human extracellular signal-regulated kinase activator kinases, MEK1 and MEK2. J. Biol. Chem. 268: 11435-11439, 1993.

NCBI AND UNIPROT INFORMATION

NCBI GI #	547915
NCBI GeneID	5605
UniProt Accession #	P36507
Molecular Weight	400
NCBI Official Full Name	Dual specificity mitogen-activated protein kinase kinase 2
NCBI Official Synonym Full Names	mitogen-activated protein kinase kinase 2
NCBI Official Symbol	MAP2K2
NCBI Official Synonym Symbols	CFC4; MEK2; MKK2; MAPKK2; PRKMK2
NCBI Protein Information	dual specificity mitogen-activated protein kinase kinase 2; MAPK/ERK kinase 2; MAP kinase kinase 2; ERK activator kinase 2; mitogen-activated protein kinase kinase 2, p45
UniProt Protein Name	Dual specificity mitogen-activated protein kinase kinase 2
UniProt Gene Name	MAP2K2
UniProt Synonym Gene Names	MEK2; MKK2; PRKMK2; MAP kinase kinase 2; MAPKK 2; MEK 2
UniProt Entry Name	MP2K2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

